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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,944	03/25/2004	Laszlo Varga	16274.172	6886

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EXAMINER	
NGUYEN, TUAN N	
ART UNIT	**PAPER NUMBER**
2828	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,944	VARGA ET AL.	
	Examiner	Art Unit	
	Tuan N. Nguyen	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *22-28* is/are allowed.

6)☒ Claim(s) *1,6,8,9,11,13,18,19 and 21* is/are rejected.

7)☒ Claim(s) *2-5, 7, 10, 12, 14-17, 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In respond to applicant's amendment filed 11/02/2006, claims 1, 2, 6, 7, 11, 12, 15-20 have been amended. Claims 1-28 are pending.

2. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or non-obviousness.

4. Claims 1, 6, 8, 9, 11, 13, 18, 19, 21 are rejected under 35 U.S.C. 102(a) as being unpatentable Murata (US 6795458).

With respect to claims 1, 11 Murata '458 shows and discloses a temperature compensation system for a laser *(Title/ Abstract) (Col 16: 30-55)*, the temperature compensation

system comprising: a laser driver having a first potentiometer *(Fig 1: 12c, 13a first potentiometer measuring electromotive force)*, the laser driver configured to provide a first signal to a laser based on a resistance value of the first potentiometer *(Fig 1: 2,6 driving circuit #6 provide a first signal to a laser #2)(Col 7: 54-67)*; an optical communication analyzer configured to provide a second signal indicative of a first output parameter of the laser *(Fig 1: 4 an optical communication analyzer / photodetector #4 detect first laser output L_{back})*; and a computer system configured to drive the first signal and receive the second signal and determine a first updated resistance value for the first potentiometer to obtain a first desired laser output parameter value based on a first known resistance value of the first potentiometer, the second signal, and the first desired laser output parameter value *(Fig 1: #10, 24 computer and control system drive the first signal and receiving the second signal #28, from the feedback 10a L_{Back} to obtain a first desired laser base on a value of first, second, and first desired laser output feedback #12c/d, 13, 4)(Col 1: 20-67)*. Since claim 11 recites the same or identical elements/limitations it is inherent to use patents '458 to recite the method of compensating temperature variation of a laser diode.

With respect to claim 6, Murata '458 shows and discloses a memory storing a temperature compensation program; and a processor, which executes the temperature compensation program instructions *(Fig 1: 20, 22a/b control means and memory, and CPU #24)(Col 16: 30-55)* to: select a first resistance setting for a first potentiometer for controlling a bias current of a laser diode *(Fig 1: 16a bias current circuit to laser diode #2) (Col 4: 30-55)*; receive a measurement of an average power of the laser diode; and calculate a second resistance setting for the first potentiometer based on the first resistance setting for the first potentiometer, the measurement of the average power, and a desired average power *(Col 3-4 receiving the*

average power of the laser diode #2 output, and calculate second setting based on first/previous potentiometers # 12c/d, 13, average power and desired power of the control laser control system)(Col 3-4)(Col 7-8: 30-67).

With respect to claims 8, 9, 13, 21 it is inherent for the control system executes the temperature compensation program instructions to set the *temperature of the laser diode to a selected value*, and the temperature compensation program instructions is stored in the memory *(Fig 1: 24, 22a, b, 20 CPU, memory, and control means)*, or setting the temperature of the laser diode to a selected value or desired value.

With respect to claim 18, Murata '458 teaches the above. The claim further requires wherein calculating the second resistance setting for the first potentiometer comprises a given equation. It has been held that where the general conditions of a claim are disclosed in the prior art, disclosing the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

With respect to claim 19, Murata '458 shows and discloses a computer readable medium for use in a computer system comprising: a computer readable program code means for causing a computer to: select a first resistance setting for a first potentiometer for controlling a bias current of a laser diode; receive a measurement of an average power of the laser diode; and calculate a second resistance setting for the first potentiometer based on the first resistance setting for the first potentiometer, the measurement of the average power, and a desired average power *(Fig 1: 24, 22a/b, 20, CPU, memory, control means, and program codes Fig: 5a/ 5b,6,8,9,14-17) (See*

claims 1,11,6 rejection for controlling bias current and calculate using the feedback)(Col 7-8: 30-67).

REASON FOR ALLOWANCE

Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowance - Applicant's response filed on 12/15/2004 has been considered, with respect to claims 22-28 the references of the record fail to teach or suggest a fiber optic transmitter comprising:

Claim 22:

a laser with a first potentiometer controlling a bias current of the laser, and a second potentiometer for controlling a modulation current of the laser, *wherein a first value of the first potentiometer is set for a specific temperature by selecting a second value for the first potentiometer*, measuring an average power of the laser; and *calculating the first value for the first potentiometer based on the second value for the first potentiometer*, the measured average power, and a desired average power; and *wherein a third value of the second potentiometer is set for the specific temperature by selecting a fourth value for the second potentiometer; measuring an extinction ratio of the laser; and calculating the third value for the second potentiometer based on the fourth value for the second potentiometer, the measured extinction ratio, and a desired extinction ratio.*

Allowable Subject Matter

Claims 2-5, 7-10, 12, 14-17, 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The references of the record fail to teach or suggest:

Claim 2:

The laser with second potentiometer, where the *laser driver and the optical analyzer provides a third and fourth signals* based on the second potentiometer value, *the computer drive the third and receive the fourth signal* to update a second resistance value based on a second known value from *the second potentiometer, the fourth signal, and the second desired laser output parameter.*

Claim 7, 12, 20:

wherein the processor compensation is to select a third setting for a second potentiometer for controlling a the laser modulation current, while receiving an extinction ratio of the laser diode, and *calculate a fourth resistance setting for the second potentiometer based on the third resistance setting for the second potentiometer, the measurement of the extinction ratio, and a desired extinction ratio.*

Response to Argument/

6. Applicant's arguments filed on 11/02/2006 have been fully considered but they are not persuasive.

With respect to page 10 and claim 1, Applicant pointing out that Murata elements 12c and 13a being "D/A conversion circuit and a bias current control circuit" and no passage in the reference cite "potentiometer". The examiner viewed "potentiometer" as an apparatus/circuit where a portion of voltage being tapping from and comparing with other voltage. In this case, the elements 12c and 13a meets the functional definition of broadly termed "potentiometer". The Applicant further amended to recite " configured to .... determine a first update *resistance*

value for the first potentiometer...". The examiner stands that all electrical components have resistance value (where it can be shown as V= IR), Murata (Fig 1: 12c, 13a, 10b, 6b V_2, I_2) shows where voltage V_2 and current I_2 are produced, hence the resistance value limitation has been met.

With respect to page 10 and claim 6, Applicant pointing out that Murata did not "mention of a 'setting' being 'selected' for a 'potentiometer' .... and the examiner failed to establish that Murata discloses the claimed 'processor' in combination with other limitation." The examiner stands that the feedback to the controller substantiate that the processor need to select/adjust the system setting parameters so that system stabilization can be maintain. This can further seen via (Fig 2: 30-40; Fig 5a, 6, 8, 9).

With respect to page 10-11, Applicant pointing out claims 11, 19 was rejected as "A product by process claim...". The examiner makes correction, that the claim is rejected under method of using an apparatus, for the structural content is similar to its device claim. If Applicant insists that the method of compensation is different, then the claim set should restricted for the method can compensate other system not just for laser diode. The Applicant further pointing out claim 11 requires "selecting a first setting and calculating a second setting for a first potentiometer...". The examiner clarify that in constant feedback control system, even elements "Fig 1: 12c, 13a D/A conversion circuit and a bias current control circuit" have it initial output value, and calculating and set the second parameter based on the previous output is nothing new in the art, in this case the elements 12c & 13a new value output also vary and based on its previous output.

With respect to page 12-3, Applicant pointing out claims 8, 9, 13, 21 were rejected under inherency and that prior art is not sufficient to establish the inherency result. The examiner stands that the feedback to the controller substantiate that the processor need to select/adjust the system setting parameters so that system stabilization can be maintained is the bases of inherency (Fig 2: 30-40; Fig 5a, 6, 8, 9).

With respect to page 14, the Applicant pointing out "patentability of a claim is properly determined with reference to the claim as a whole". Examiner agrees that patentability of a claim based as a whole, when the claim contains all structure and functional limitations that define the invention. The examiner read the claims given their broadest reasonable interpretation consistent with the specification. However, it is not proper to read limitations appearing in the specification into the claim when these limitations are not recited in the claim. See *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (fed. Cir. 1994); *Intervet America Inc. v. Kee-Vet Lab. Inc.*, 887 F2d 1050, 1053, 12 USPQ2d 1474, 1476 (Fed. Cir. 1989).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP 706.07. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (571) 272-1948. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey Minsun can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan N. Nguyen

Tuan Nguyen

MINSUN OH HARVEY
PRIMARY EXAMINER